

Sustainability in Design and Technology Education

The past, the present and the future.

NAAIDT

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The vision

If I walked into any D&T classroom or workshop, if I looked through any D&T teacher training course, any CPD, if I investigated any university design course, I would find sustainability given as much weight and credibility as aesthetics and fitness for purpose.



We've come a long way since

Curriculum: “There isn’t room for anything else. Teachers are already overworked.”



Teachers: “Design and Technology is about teaching skills. I don’t want to get into the values business.”

Students: “Isn’t sustainable design about designing for poor people who can’t design for themselves?”



Designers: “Only one in every 10,000 products is designed with the environment in mind.” Edwin Datschefski

Today - The curriculum



Qualifications and
Curriculum Authority

QCA D&T guidelines allow awarding bodies to devote up to 35% of GCSE marks to values issues

“The new specification is designed to foster awareness amongst candidates of the need to consider sustainability and the environmental impact of their designing.”

“Candidates should develop knowledge and understanding of the six Rs – recycle, reduce, reuse, refuse, rethink and repair.”

Today – some teachers



“Every student has to go into our eco-bins room to see what materials are there for them to re-use before they are allowed to use any new materials.”

“Every fortnight I ask my students to identify a product they think is a good example of sustainable design. They have one minute to tell the rest of the group why – then we discuss it.”



Over 5,000 copies of the Sustainability Handbook have been distributed to schools and ITE institutes.

Today – some students



“It has provided me with a totally different outlook on life. Sustainable thinking is going to be our future and I am extremely lucky that the school that I attended allowed me to take part in the SDA and learn about the basics at a young age.”

“When I look back at what I did for my A level project, I’m appalled. I’ve realised that any product can be designed and made sustainably.”



Today – the world of design



[re]design

eco-kettle



pieces of you



Farmers' markets



blue marmalade

But there's still a long way to go...

- Sustainability is still seen as a separate topic rather than an integral part of D&T
- Lots of DT teachers still lack confidence in dealing with sustainability in their focus areas
- It's still a marginal presence in ITE courses
- There's still misunderstanding and misuse of sustainability terms and definitions

The six Rs – in every GCSE 2009



1. Match the definitions to the most appropriate R word
2. Discuss and rank the R words according to how much they contribute to a more sustainable world.

Material choices

Today – the role of Practical Action



The Sustainability Handbook

http://practicalaction.org/?id=sustainable_design_technology



Topical e-resources produced 8 times a year

But we need your help.....

So what's sustainability got to do with my GCSE in D&T?



Every **designer and maker** is making **choices** about the product they design. Lots of those decisions link to sustainability issues.

In your coursework and final exam paper – you will need to demonstrate your understanding of sustainability.

So let's get started.....

Four sustainability dimensions to a T- Shirt?

Using the sustainability dimensions diagram, work out which labels from the T-shirt fall under each dimensions.

Find out more about the T Shirt from www.howies.co.uk

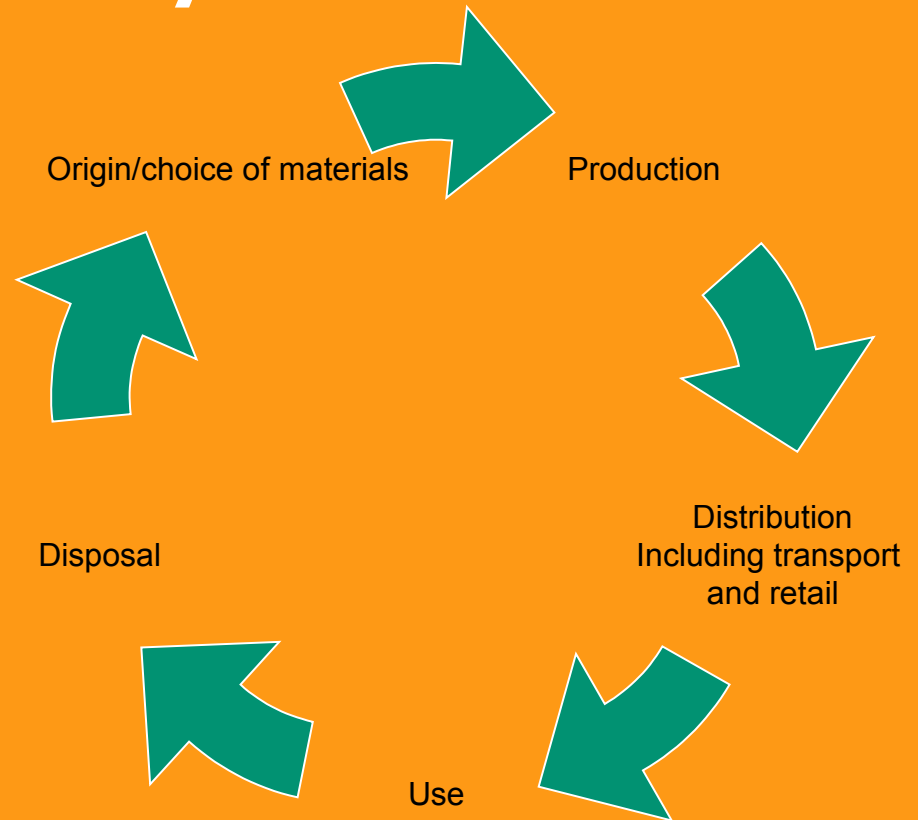


Life cycle analysis

This is often used by designers to help them understand the environmental impact of a product from extraction of materials to final disposal.

They try to work out the impact a product by looking at

- resources used (e.g. oil, metal)
- energy used (e.g. electricity)
- transport (e.g. lorry, roads)
- buildings (e.g. factory, shop)
- land (e.g. to grow crops)
- water (e.g. for irrigation)



CPD courses on sustainability

- Building confidence takes time
- Activities designed for teachers as well as students



- Events in Warrington, London and Rugby this term.
- Encourage teachers to come!

Help to spread knowledge and use of simple sustainability activities and ideas

Room 101



Where's the impact?

Product pairs

Understanding the implications of consumer values

“Isn’t it remarkable that advertisers and manufacturers have made us believe that what we want is what we need?”

17 year old
Huddersfield New
College student



Make sure we don't lose sustainability or D&T in the primary review!

- **Where's sustainability highlighted?**
- Where's the designing in science and technology?
- Where's the technology in other learning areas?



The Independent Review
of the Primary Curriculum



Make the most of the big picture curriculum



STEM and cross-curricular dimensions – make the most of them – sustainable D&T has lots to offer!



Milk carton challenge



Sustainable development and the global dimension – a big role for D&T.



Practical Action's floating gardens

Make sure we contribute to developing more Sustainable Schools



All eight doorways present opportunities for D&T to help create natural links between the curriculum, campus and community

The Pig Brother House at Priestlands School, Lymington – used for GCSE Food Technology and Environment and Land Based Science and they sell their own sausages to canteen and community



What's its status in reporting?

"Work on sustainability tended to be piecemeal and uncoordinated, often confined to extra-curricular activities and special events rather than being an integral part of the curriculum. Therefore, its impact tended to be short-lived and limited to small groups of schools." May 2008

"Sustainability in designing needs to be brought more to the fore in teaching and examining, and in the projects set". August 2008



Together we can make the vision reality!

